HYBRID Portable Test Monitor

User's Guide

XA TM-LFC07HDR

Features

High Resolution 7inch LCD Monitor
HD-SDI INPUT (3G) HDMI INPUT (Full HD)
Ultra-low power LED BACKLIGHT Monitor
COAX (UP TO COAX) Remote Control

XA TM-LFC07HDR

Precautions

- Please always handle the unit with care. Otherwise, the LCD display panel can be damaged when it gets any physical shock and/or you drop it to the ground. Please note that we may charge for the replacement of the display panel even the unit is under warranty, when it is broken due to any physical shock or user's misuse.
- Avoid touching the screen. To clean the screen, wipe the screen with a clean, soft and dry towel and be careful not to damage the LCD display panel.
- To reduce the risk of fire or electric shock, do not expose the LCD to rain or moisture.
- Please do not connect the power wire to the video input/output port. It may cause malfunction when AC or DC power is inserted.
- **Please use only the authorized battery charger included in the package. Otherwise, it may cause fire or explosion when using an unauthorized battery charger. (When red LED flicks in recharging, please request A/S)**
- The built-in Li-Polymer battery (11.1V / 2200mA) is under six months warranty from the purchase date. Please do not use it with another type of battery on this portable monitor as it may cause fire or explosion.
- The battery can be damaged when a short circuit is created at the power connecting port or when the polarity of the power cable is connected in reverse.
- When supplying power to the camera through the test monitor, please use the power harness (DC jack) enclosed in the package. (we may charge you for the repairs if you cause a problem, using another jack)
- When supply power to the camera, please connect first the power cable to the camera and then turn on the unit. Otherwise, it may create a short circuit and the unit can be turned off automatically in order to protect the battery. When a short circuit is produced, please turn off the test monitor and then remove and re-insert the power harness (DC jack). Then turn the unit on again.
- Please keep the unit inside of the carrying bag in order to protect the LCD screen from scratches
- Please do not put the products on anything electrical conductive (screwdrivers, coins, iron, etc.) and not put them around water.
- If the product emits smoke, abnormal noise, or a strange odor, immediately turn it off and contact your distributor.
- When the unit is not working properly, please contact your distributor. Please do not disassemble the unit by yourself. (When unauthorized person modified or made damage on the product trying to repair it, we may charge you with the fee.)

1. Introduction

1-1. Overview

XA TM-LFC07HDR is a multi-functional Analogue / HD-SDI / HDMI / VGA portable test monitor and this device can be used with various purposes such as adjusting camera angle and focusing, supplying power to camera, controlling PTZ for the speed dome camera and also, checking Video output, DVR or NVR menu for setting.

7" wide TFT-LCD panel (Resolution: 1024 x (RGB)x 600) displays clear image for adjusting the focus of the HD-SDI camera. And it provides the 3 hours lasting time with the high capacity battery

Using this device, sole installer can check every parts of video surveillance system alone and complete every task easily.

1-2. Features

- **7 inch Wide TFT-LCD Digital Panel (Resolution: 1024 X (RGB) X 600)**
- LED Back Light
- **Various input: HD-SDI (~3G), HDMI (~ 1080 P60), VGA (~ 1600 * 1200), CVBS**
- P/T/Z control via RS-485 communication for speed dome cameras. (possible to add new protocols upon a customer's request)
- **Coaxial communication for CVBS** (UP TO COAX) / Possible to control camera OSD menu / PTZ over coax cable in a far distance. (Max. 800m)
- **Supply power to the camera** (DC-12V / 500mA)
- HD-SDI, HDMI imbedded audio output with Speaker
- Leather bag and neck string for safety and convenience
- Li-polymer battery with max. 3 hours of productivity (The additional battery can be used optionally)

1-3. Applications

- Display the video signals or adjust the camera angles.
- Check the cable status and/or DVR.
- Check speed dome cameras, PTZ camera status or control PTZ.
- Control the OSD menu of a camera which supports coax communication.
- Check the distance which HD-SDI Repeaters & Receivers should be installed.
- Check DVR VGA outputs

1-4. How to use it

- **To adjust the viewing angle for HD-SDI and Analogue camera**

Adjusting the camera angle at the elevator

Adjusting the camera angle at the Parking lot

- **HDMI (1920 x 1080 60P), UXGA (1600 x 1200) Video Input**

Supports HDMI & VGA Input

Possible to check DVR menu with high resolution

(HDMI: 1920 x 1080 P60, VGA: 1600 x 1200)

- **Optional Accessory (Vehicle power charger)**

Charge the battery in the car for convenient use.

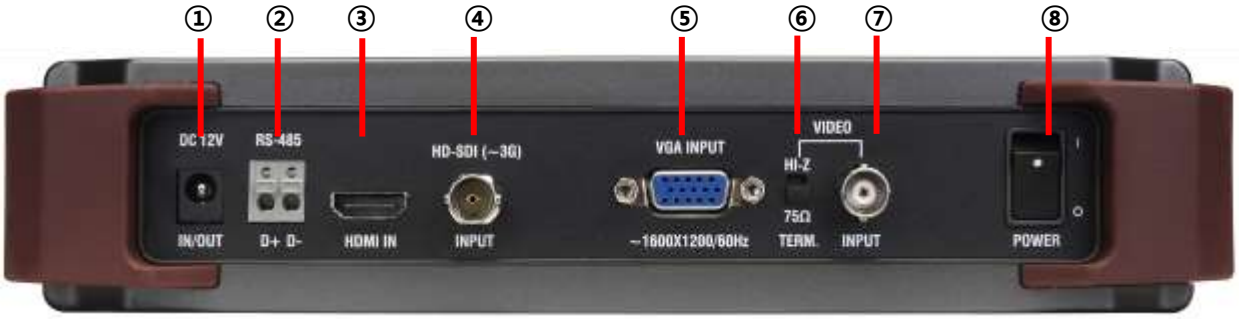
2. Components

Main device	Leather Bag & Neck String	Accessories	
		Charge & Power code	Power harness

3. Product Parts and Peripheral Device Connection

3-1. Part name and function

3-1-1. Interface



NO	MARKING		FUNCTION
①	12V		Charge the built-in Li-Polymer BATTERY (with exclusive charger)
②	RS-485		RS-485 communication for PTZ RECEIVER and SPEED DOME CAMERA
③	HDMI INPUT		HDMI Signal Input (Max. 1920 x 1080P 60Hz)
④	HD-SDI	INPUT	HD-SDI Signal Input (Max. resolution : ~3G)
⑤	VGA INPUT		UXGA Input (Max. resolution: 1600 x 1200)
⑥	VIDEO	TERM	HI-Z position: When distributing the inputted video to DVR
⑦		INPUT	CVBS video signal input Coaxial communication: PTZ RECEIVER or SPEED DOME CAMERA
⑧	POWER		Power switch (ON/OFF)

3-1-2. Button for each function

① Menu operation buttons

Button	Camera Menu	RS-485 & COAX Mode	Angle Guide	Video Input
MODE		PTZ&OSD Mode switch		Source Change
EXIT		Operate in PTZ Mode	Angle Mode Out	Zoom In (Analog)
MENU		Operate in OSD MODE		Menu ON
ESC		Operate in OSD MODE		Menu OFF
Multi Way Key	Up, down, right, left	Pan/Tilt/Zoom/Focus	Up, down, right, left	
ENTER Key	ENTER		Select bar	

② Video status

- Input Mode: HD-SDI, HDMI, VGA, CVBS
- Display Mode: 4:3, Full(16:10), 16:9, Zoom1, Zoom2
- Input resolution: 1920 x 1080 p60 , NTSC , PAL

③ Battery status

- Total 7 steps to indicate the battery status. 090% 070% 050% .....

3-2. Connection Diagram

3-2-1. HD-SDI Input

• Connect to HD-SDI camera / output the power to camera using power over coax feature. (Input data bitrate: ~3G)

3-2-3. Analogue Video Input

• Connect to Analogue Camera

• Output the power(12VDC / 500mA) to camera using power over coax feature.

• Using Coax communication feature(Coaxitron), it is possible to control Camera OSD menu or PTZ of the Speed dome camera via coaxial cable.

3-2-3. VGA Input

• Connect to DVR or Computer and It supports UXGA in maximum and higher resolutions may not be displayed normally.

3-2-7. HDMI Input

• Connect to DVR, Computer or other device which outputs HDMI signal.
(Resolution: ~1080P 60Hz)

3-2-4. PTZ&OSD control through RS-485

• Connect to PTZ Receiver and/or SPEED DOME CAMERA as controller and also, connect to controller as PTZ receiver to check if the controller outputs data accurately.

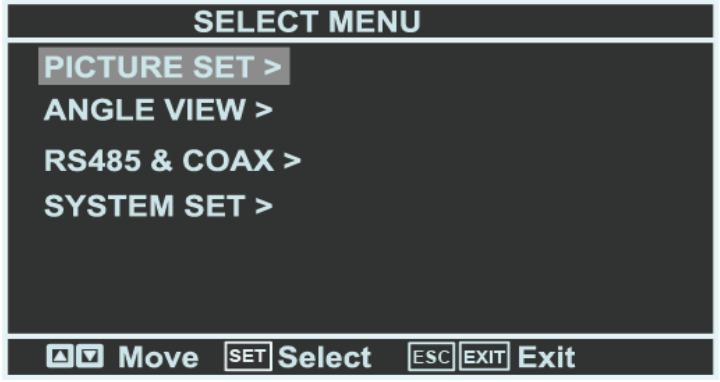
4. Menu Setting

4-1. MENU Mode

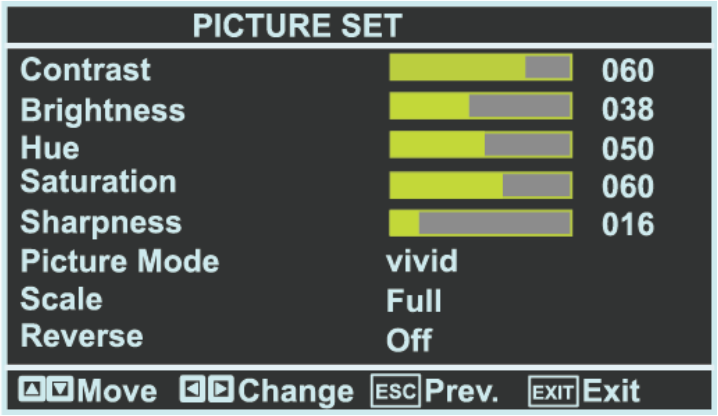
4-1-1. SELECT MENU

- Press MENU Button and main menu will be displayed as below.
- Press the direction buttons to mode Up ▲, Down ▼, Right ▶ or Left ◀.

The menu mode is automatically off if you don't press any buttons for a few minutes.



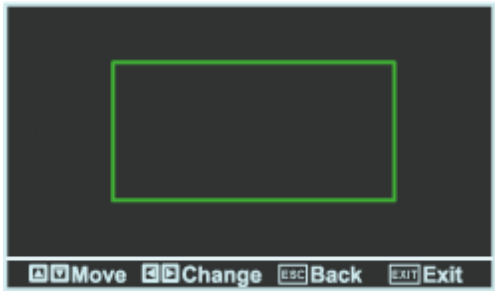
4-1-1-1. PICTURE SET

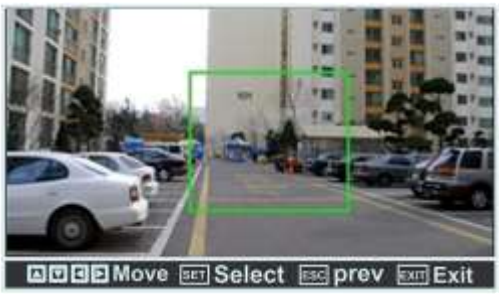


- Contrast: To adjust the contrast range. (0~100 steps)
- Brightness: To adjust the brightness. (0 ~ 100 steps)
- Hue: To adjust the color (0 ~ 100 steps)
- Saturation: To adjust the Chroma. (0 ~ 100 steps)
- Picture Mode: Standard > Movie > Vivid > User.
  The value of each mode changes automatically.
- Scale: To adjust the screen ratio. (Full > 4 : 3 > Zoom1 > Zoom2 > 16 : 9)
- Reverse: To reverse the upper and lower sides of the LCD screen.

4-1-1-2. ANGLE MODE

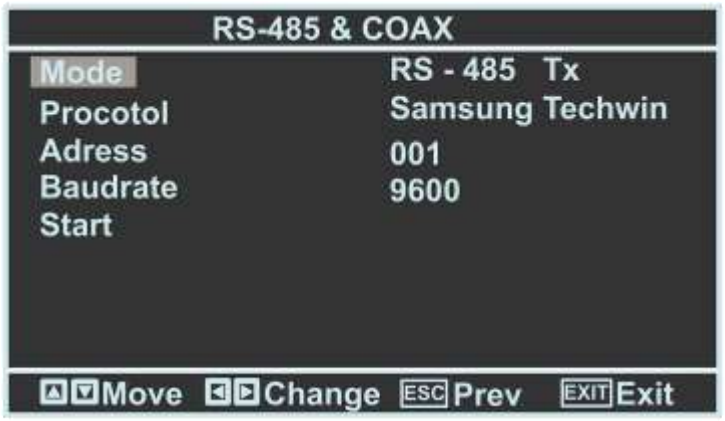
Indication lines: To adjust the viewing angles based on a specific area.





- When selecting the ANGLE MODE, it displays a green box and the indication lines of the camera angle zone..
- Press the SET MENU button to select the size of the green box. Press again the SET MENU button and select the side line of the box you want to adjust, and then press ◀/▶/▲/▼ buttons to set the position of each lines.
- To exit the ANGLE MODE, press the EXIT KEY.

4-1-1-3. RS485&COAX MODE (PTZ / OSD Control)



- MODE: In RS-485 Tx mode and COAX mode, you can control the PTZ & Camera OSD. In Rx. mode, it receives the PTZ control data (HEX value) and displays the data on the monitor. In Analyzer mode, it analyzes the protocols received through the RS-485 port and displays the HEX value and command.
- PROTOCOL: To select the protocol of the equipment which you may control.
- ADDRESS: To select the address of the equipment which you may control

※ In COAX mode, you can control the camera regardless of the address

- BAUDRATE: To select the com. speed. (2400, 4800, 9600, 19200, 38400)

※ In COAX mode, you can control the camera regardless of the baud rate

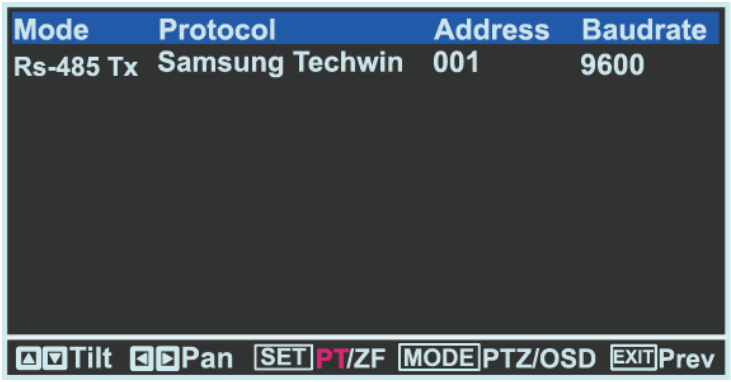
- START: To start controlling the device after setting all of the menus above.
- EXIT: To exit from MENU MODE

※ **Built-in Protocol:** Other protocols are available upon request in case that the camera manufacturers provide us with their protocols in advance..

NO	COMPANY	PROTOCOL	PRODUCT MODEL
01	DONGYANG UNITECH (OSD)	D-MAX	DSC-300S/270S/230S Series (High Speed PTZ Dome Camera) DOH-240S Series (Speed PTZ Dome Camera) DPC-200 (Mini PTZ Dome camera) DRX-500, DRX-502A (CCTV PTZ receiver)
02	DONGYANG ELECTRONICS	DY-255RXC	DY-255RXC
03	FINE SYSTEM	FineSystem	CRR-1600i/s
04	INTER-M	VRX-2201	VRX-2201
05	HONEYWELL(OSD)	Honeywell	HRX-2000, ScanDome-Ⅱ
06	LG MultiX(OSD)	LG MultiX	LPT-EP551PS/EI551PS/OS551HQ/OI551HQ/OI511HQ
07	LG LPT-A100L	LG LPT-A100	LPT-A100L
08	PANASONIC(OSD)	PanasonicC	CS600, CS650, CS564, CS85X,...
09	PANASONIC	PanasonicN	CS564CS854/A,...
10	PELCO(OSD)	Pelco-D	...
11	PELCO(OSD)	Pelco-P	...
12	SAMSUNG ELECTRONICS (OSD)	Samsung	SCC-641/3/07,..., SCC-64x Series
13	SAMSUNG TECHWIN (OSD)	Techwin	SPD-xxxx Series
14	SUNGJIN	Sungjin	RECEIVER/MPU
15	SYSMANIA	Sysmania	ORX-1000
16	VICON	Vicon Stn	V1311RB,V1310RB, V1200R-LM, etc. receivers
17	VICON	Vicon Ext	Surveyor Dome Series
18	Ikegami	Ikegami35	PCS-35
19	Ikegami	Ikegami358	PCS-358
20	NEW BORN HIGHTECH	NEWBORN	
21	TOKINA	TOKINA DMP	
22	Ernitec(OSD)	ERNA	BDR-51x,BDR-55x,BDR-575,ICU
23	BOSCH	Bosch OSRD	Receiver/Drivers, G1, G2, G3, VEZ, and G4 Series AutoDomes
24	GSP Systems	CYBERSCAN1	
25	Hitron	Fastrax Ⅱ	Fastrax Ⅱ (HID-2404)
26	YUJIN SYSTEMS	Yujin Sys.	EPT-5000S/6000S
27	Dynacolor DSCP	Dyna. DSCP	dynacolor DH801, DH701 and DH600
28	Ladon	Ladon	
29	HANIL STM	MCU-1200N	MCU-1200N, 1400N, 1500N
30	LILIN_MLP2	LILIN_MLP2	
31	LILIN_FastDome	LILIN Fast	
32	AMERICAN DYNAMICS	AD SpdDome	

The protocols on companies marked with '(OSD)' are available to controlling CAMERA OSD Menu.

4-1-1-4-1. RS485(TX)



- It displays the current setting mode at the top of the screen.
- Press SET KEY shortly in MULTI WAY KEY selection to select PAN/TILT mode or ZOOM/FOCUS mode.

- RED : P.T.Z MODE - BLUE : OSD MODE

- Press Mode KEY to select CAMERA OSD control mode.
- Press MENU KEY to control CAMERA OSD and press ESC KEY to exit OSD MENU

In case of BOX/DOME Camera, Hold ENTER KEY to select OSD Menu

- Press EXIT KEY to go to the previous mode.

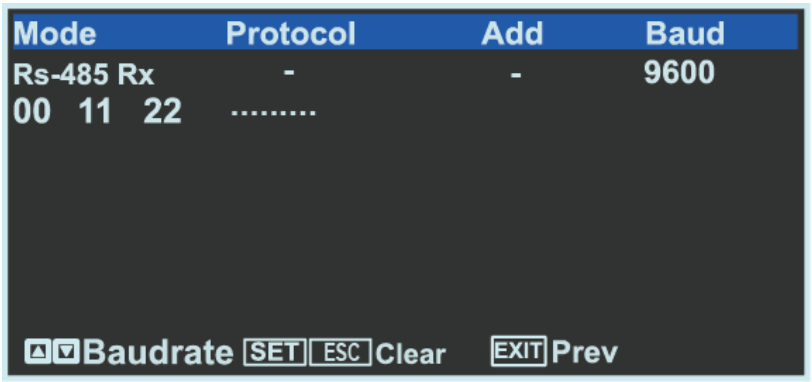
(In CAMERA OSD mode, switch to PAN/TILT mode first in order to exit.)

- Press ◀/▶/▲/▼ buttons following the OSD guidance on the screen.

※ Cautions

- The XA TM-LFC07HDR has 2 different PELCO-D PROTOCOL, which are PELCO-D PROTOCOL, PELCO(CNB).
- In case of PELCO-D PROTOCOL, it is possible to enter the camera OSD menu by using MENU key. (SET PRESET COMMAND)
- In case of PELCO (CNB) PROTOCOL, it is possible to enter the camera OSD menu by using MENU key (Go to PRESET) or ESC key (Run PRESET)
- Depending on the camera manufacturer, the command to enter the camera OSD Menu is different.

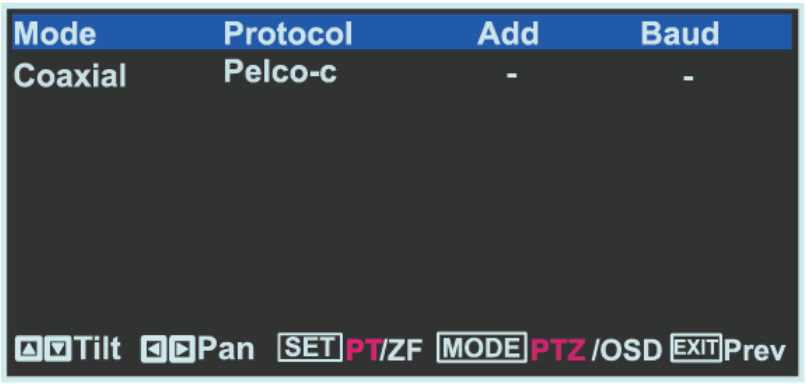
4-1-1-4-2. RX



- It displays the current setting mode at the top of the screen.

- It displays the connection status of RS-485 line indicated by HEX value.
- The received data via RS-485 port can be displayed maximum in 8 lines in BYTE (16 byte).
- When the data is more than 128 byte, it may be cleared out automatically. You can also clear it out temporarily, using the ESC button.
- To go to the previous menu, press the EXIT button.

4-1-1-4-3.COAX [UP TO COAX] Control



- It displays the current setting mode at the top of the screen..
- Press SET KEY shortly in MULTI WAY KEY selection to select PAN/TILT mode or ZOOM/FOCUS mode.
  - RED : P.T.Z MODE - BLUE : OSD MODE
- Press Mode KEY to select CAMERA OSD control mode.
- Press MENU KEY to control CAMERA OSD and ESC KEY to exit OSD MENU.
  In case of BOX/DOME Camera, Hold ENTER KEY to select OSD Menu
- Press EXIT KEY to go to the previous mode. (In CAMERA OSD mode, switch to PAN/TILT mode first in order to exit.)
- Press ◀/▶/▲/▼ buttons following the OSD guidance on the screen.

※ Possible to control the camera OSD menu in the remote side (Max. 800M) by Coax communication. (Standard of RG-6)

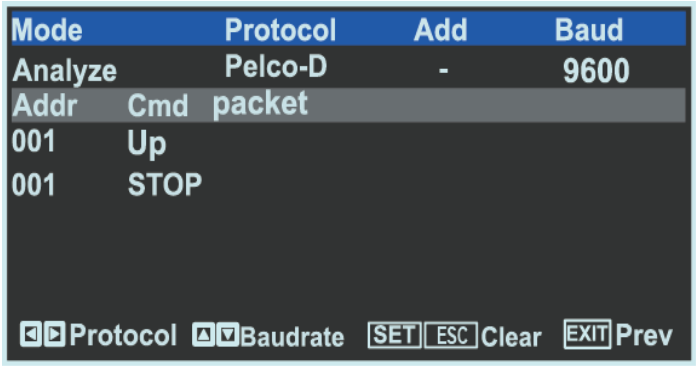
- List of controllable models

NO	COMPANY	Monitor OSD	CONTROLLABLE MODEL
01	**Samsung Techwin**	PELCO-C	All models to support COAX communication (WINNER 5)
02	**PELCO**	PELCO-C	All models to support COAX communication
03	DONGYANG UNITECH	PELCO-C	All models to support COAX communication (PIXIM)
04	Samsung E	A1	All models to support COAX communication

※ PELCO-C PROTOCOL in XA TM-LFC07HDR is compatible with all the product models above. Also, XA TM-LFC07HDR can control COAX in a remote side through the automatic NTSC/PAL recognition without any set-up.

4-1-1-4-4. ANALYZER

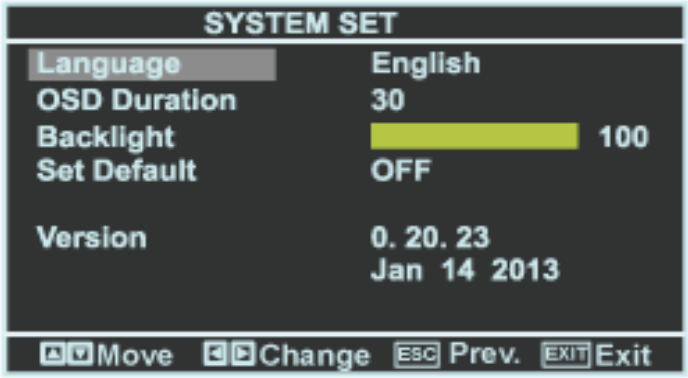
- Using Analyzer mode, test monitor recognizes the received data packet and displays the address and command.



- Addr : show the address.
- Cmd : show the command.
- Packet : show the Hex code of the received data.

4-1-1-5. SYSTEM SET

- To set the XA TM-LFC07HDR System



- Language: KOR / ENG / JAP / RUS
- OSD Dwell Time: To set time to turn the monitor menu OFF
- BACK LIGHT: To adjust the brightness of the LED Monitor.
- Setting Initialization: To initialize all settings.
- Version: To represent the product Firmware version and the date.

5. Specifications

MODEL			XA TM-LFC07HDR	
LCD	DISPLAY RESOLUTION		1024 X (RGB) X 600	
	SIZE		7 inch(diagonal)	
	PIXEL PITCH		0.150mm(H) X 0.150mm(V)	
	BRIGHTNESS(cd)		Typ.: 250	
	Contrast Ratio		Typ.: 500	
	Viewing Angle	Horizontal	75°	
		Vertical	75°	
	RESPONSE (ms)		35	
VIDEO	INPUT	HDMI	~1080p 60	
		HD-SDI	~3G	
		CVBS	NTSC/PAL 1.0Vp_p,	**COAX Comm.**
		XVGA	Max. 1600x1200, 60Hz	
CONNECT PORT		HDMI INPUT	HDMI C Type F	
		HD-SDI INPUT	BNC-F	
		VGA INPUT	D-SUB 15Pin RIGHT ANGLE TYPE	
		CVBS Video Input:	BNC-F	
		RS-485	Pan/Tilt/Zoom/Focus control	OSD Control
POWER		INPUT	DC 12.6V(exclusive Adapter included)	
COLOR			Dark Gray	
BATTERY			2 units of Li-Polymer: 11.1V, 2200mA (protection circuit applied)	
POWER CONSUMPTION	With HDMI input		6.5W	
	With HD-SDI input		7.5W	
	With VGA Input		6.5W	
	With CVBS Input		6.5W	
TEMPERATURE			0℃ ~ +50℃	
HUMIDITY			0% ~ 80%	
WEIGHT			SET : 920g , BAG : 640g Total : 1.6kg	
DIMENSION(WITHOUT THE BAG)			240.9(W) X 153.4(H) X 50(D)mm	

6. Warrantee Certificate

Product Name		
Model No.		
Date of Purchase		
Place of Purchase		
Customer	Name	
	Contact info.	
Distributor	Name	
	Contact info.	
Warranty Period	1 Year from the date of purchase	

This product has passed thorough quality control and test, and if this gets broken during normal use, we provide 12 months warranty service.

- Please check this warranty indication first.
- For any defect under normal use within the warranty service period, we give you free repair service according to the warranty certificate.
- Please contact the number stated on the backside regarding repairs.
- Please inform us of the product's model No. and more details on faulted conditions when you report a problem. Also, if you know the name, division of the person in charge of the service, it is more convenient for you.
- Please read the user's manual before reporting a problem.
- The specification is subject to change without any notice in advance, for its quality improvement.
- Despite of free warranty service period, we charge you for the repairs in the cases below:
  - When an unauthorized person made damage on the product, trying to repair it.
  - Breakage or trouble made by wrong power or frequency.
  - When you want to reassemble for full system or replace parts within warranty service period.
  - Breakage or trouble by natural disasters (fire, flood, tsunami, etc.)

[MEMO]